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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

GROSS, KENNETH A

ART UNIT	PAPER NUMBER
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2122

DATE MAILED: 06/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/686,628

Applicant(s)

HINKER, PAUL J.

Examiner

Kenneth A Gross

Art Unit

2122

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2-5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 3, 4, 12, 13, 14, and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 3 recites the limitation “the 64 bit source code”. There is insufficient antecedent basis for this limitation in the claim. Claim 12 recites the limitation “a work space parameter”. It is not clear from this claim what exactly a work space parameter is. Claim 13 recites the limitation “the 64-bit source code”. There is insufficient antecedent basis for this limitation in the claim. Claim 14 recites the limitation “the 64-bit interface”. There is insufficient antecedent basis for this limitation in the claim. Furthermore the term is confusing. Does this indicate that the interface is 64-bits or that it is an interface to the 64-bit source code? Claim 4 is rejected for being dependent on a rejected parent claim.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an

Art Unit: 2122

international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claim 5 is rejected under 35 U.S.C. 102(e) as being anticipated by DeMaster (U.S. Patent Number 6,066,181).

In regard to Claim 5, DeMaster teaches: (a) source code with a subprogram having at least one of an integer and logical parameter (Figure 1, item 124); (b) an interface generator that reads the subprogram and that generates an interface file with indications of characteristics of the parameter (Column 2, lines 10-21); (c) a stub generator that reads the interface file and that generates a stub for the subprogram by using the characteristics, wherein each of the subs receives a set of parameter values, generates the values for the required parameters and invokes the subprogram with the values for the parameters (Column 2, lines 23-43); (d) a processor for running the interface generator and the stub generator (Figure 2, item 210).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-4 and 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeMaster (U.S. Patent Number 6,066,181) in view of Busaba (U.S. Patent Number 6,369,725).

In regard to claim 1, DeMaster teaches: (a) creating an interface file for the subprogram in the source code (Column 6, lines 15-18); (b) storing in the interface file a definition of the subprogram (Column 6, lines 18-25); (c) adding to the interface file a comment for at least one of the integer and logical parameters, the comment indicating the parameter passing at least one of semantics and extent of the dimension along each of the dimensions of a non-scalar parameter. DeMaster teaches indicating in the interface file information regarding the size of a non-scalar variable (Column 9, lines 5-24); (d) reading the interface file to generate a stub routine that converts at least one of the integer and logical parameters from Java to native language and that invokes the subprogram by specifying the converted parameters (Column 6, lines 61-67 and Column 7, lines 1-4). DeMaster does not teach conversion between 32-bit to 64-bit. Busaba, however, does teach conversion from 32-bit to 64-bit parameters (Column 2, lines 8-14). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to create an interface file for the subprogram in the source code, store in the interface file the definition of the subprogram, add to the interface file a comment for at least one of the integer and logical parameters indicating the size and dimension of a non-scalar variable, and reading the interface file to generate a stub routine that converts at least one of the integer and logical parameters and that invokes the subprogram by specifying the converted parameters, as taught by DeMaster, where the conversion converts the 32-bit parameters to 64-bit parameters, as taught by Busaba, since this allows programs written in a 32-bit addressing scheme to access a 64-bit system without rewriting the source code. Claim 15 corresponds with Claim 1 and is rejected for the same reasons as Claim 1.

In regard to Claim 2, DeMaster teaches performing conversion in order to make native code programmed in native languages (C++, C, assembly) accessible to Java programs (Column 2, lines 5-10), and that Java programs invoke the native code at run time (Column 2, lines 34-43).

In regard to Claim 3, DeMaster teaches automatically generating a stub routine to convert source code (Column 6, lines 61-67 and Column 7, lines 1-4). DeMaster does not teach converting from 32-bit to 64-bit. Busaba, however, does teach conversion from 32-bit to 64-bit parameters (Column 2, lines 8-14). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to generate a stub routine to convert source code as taught by DeMaster, where the conversion is from 32-bit to 64-bit, as taught by Busaba, since this allows programs written in a 32-bit addressing scheme to access a 64-bit system without rewriting the source code. Claims 13 and 16 correspond with Claim 3 and are rejected for the same reasons as Claim 3.

In regard to Claim 4, DeMaster teaches creating an interface file for the subprogram (Column 6, lines 15-18), inserting a code-generator statement into the interface describing a characteristic of the parameter (Column 9, lines 5-24), and using the interface to create a stub for use as a 32-bit to 64-bit converter (Column 2, lines 23-33). Claim 14 corresponds directly with Claim 4 and is rejected for the same reasons as Claim 4.

7. Claims 6-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeMaster (U.S. Patent Number 6,066,181) in view of "Code Complete: A Practical Handbook of Software Construction" by Steve McConnell (hereinafter McConnell).

In regard to Claim 6, DeMaster teaches the data processing system of Claim 5, but does not teach that the source code contains comments indicating the characteristics of the parameter. McConnell, however, does teach commenting code, where the comments include characteristics of the parameter. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to build a data processing system as taught by DeMaster, wherein the source code in the data processing system contains comments including characteristics of the parameter, as taught by McConnell, since this allows for better understanding of the parameters of the source code.

In regard to Claim 7, the examiner takes official notice that a conditional value is a basic parameter type.

In regard to Claim 8, McConnell teaches commenting a source parameter if it is used to contain a return value.

In regard to claim 9, McConnell teaches differentiating between input and output data, and hence comments on a parameter's directionality.

In regard to Claim 10, McConnell teaches commenting a source parameter if it is used to contain a return value. The examiner takes official notice that a multidimensional array is a typical parameter type, and hence a parameter would be commented to indicate that it was to return a multidimensional variable.

In regard to Claim 11, McConnell teaches commenting code in order to explain how the code works, and how the parameters are affected. The examiner takes official notice that commenting code to indicate that a variable used to allocate space for another variable will

Art Unit: 2122

change the size of the variable would be an obvious choice, since it describes how the code is working, and how the variables are affected.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth A Gross whose telephone number is (703) 305-0542.

The examiner can normally be reached on Mon-Fri 7:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory A Morse can be reached on (703) 308-4789. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7240 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

KAG
June 16, 2003


GREGORY MORSE
SUPERVISORY PATENT EXAMINER
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